What is claimed is:

1. A method for mechanically assisting the pumping action of the heart, comprising the steps of :

providing a catheter comprising an elongate member having a proximal end, a distal region, the catheter further comprising an expandable member attached in the distal region and an inflatable member in the distal region and attached distal the expandable member, the catheter further comprising a lumen that communicates with the inflatable member and extends proximally;

advancing the distal end of the catheter into the aorta;

expanding the expandable member to at least partially obstruct the aorta;

inflating the inflatable member during diastole; and

deflating the inflatable member during the ejection phase of the left ventricle, wherein the pumping action of the heart is mechanically assisted.

2. The method of claim 1, wherein the inflatable member has a volume of between 10–30 cc.

3. The method of claim 1, wherein the expandable member is maintained in an expanded state during systole and diastole.

4. The method of claim 1, wherein the expandable member is cycled between an expanded state and a contracted state.

5. The method of claim 1, wherein the expandable member is expanded before inflating the inflatable member, and wherein the expandable member is contracted after deflating the inflatable member.

6. The method of claim 1, further comprising the steps of repeating the steps of inflating the inflatable member and deflating the inflatable member.

7. The method of claim 5, further comprising the steps of repeating the steps of inflating the inflatable member and deflating the inflatable member.

8. The method of claim 1, wherein the catheter is placed so that the inflatable member and the expandable member are positioned in the descending aorta.

9. The method of claim 1, wherein the inflatable member is inflated with carbon dioxide.

10. The method of claim 1, wherein the expandable member is a balloon.

11. The method of claim 10, wherein the balloon is expanded by filling with saline.

12. The method of claim 10, wherein the balloon is expanded by filling with carbon dioxide.

13. The method of claim 1, wherein the expandable member is expanded to fully obstruct the aorta.

14. The method of claim 1, wherein the expandable member is expanded to partially obstruct the aorta.

15. The method of claim 1, further comprising the steps of measuring an electrocardiogram and synchronizing inflation with the R wave of the electrocardiogram,

so that maximum inflation occurs at the peak of the T wave, and deflation is timed to occur just before the next QRS complex of the electrocardiogram.

16. The method of claim 1, wherein cerebral blood flow is augmented by the combined action of the inflatable member and the expandable member.

17. The method of claim 1, further comprising the step of measuring a physiologic parameter and adjusting the expansion of the expandable member based on the measured physiologic parameter.

18. The method of claim 17, wherein the physiologic parameter is blood pressure measured at a location upstream the expandable member and/or downstream the expandable member.

19. The method of claim 17, wherein the physiologic parameter is cerebral blood flow.

20. The method of claim 14, wherein the expandable member is expanded to cause an 80 percent obstruction of the aortic lumen.

21. The method of claim 1, wherein the inflatable member is inflated with a gas.

22. A catheter for mechanically assisting the pumping action of the heart, comprising:

an elongate tubular member having a proximal end, a distal end, and a distal region;

a first balloon attached to the elongate tubular member at the distal region and communicating with a first inflation lumen that extends proximally from the first balloon;

a second balloon attached to the elongate tubular member at the distal region distal the first balloon and communicating with a second inflation lumen that extends proximally from the second balloon, the second balloon having an inflation volume of 10–30 cc;

a first blood pressure measuring mechanism for measuring blood pressure between the first balloon and the second balloon; and

a second blood pressure measuring mechanism for measuring blood pressure upstream the second balloon,

wherein, during use, the first balloon is inflated and the second balloon is inflated during diastole and deflated during the ejection phase of the left ventricle to mechanically assist the pumping action of the heart.

23. The catheter of claim 22, wherein the first balloon has an inflation volume of 10–30 cc.

24. The catheter of claim 22, wherein the first and second blood pressure measuring mechanisms comprise manometers.

25. The catheter of claim 22, wherein the first and second blood pressure measuring mechanisms comprise pressure lumens that communicate between distal blood pressure ports and external manometers at the proximal end of the catheter.

26. The catheter of claim 22, wherein the catheter further comprises a second lumen that extends from the proximal end to the distal region.

27. The catheter of claim 26, further comprising an interventional catheter slideably inserted through the second lumen of the catheter.

28. The catheter of claim 27, wherein the interventional catheter is selected from the group consisting of an angioplasty catheter, an angiography catheter, a stent catheter, a thrombectomy catheter, an embolectomy catheter, an electrophysiology catheter, and an ablation catheter.

29. A method for mechanically assisting the pumping action of the heart, comprising the steps of:

providing a catheter having a proximal end, a distal end, a distal region, a first balloon attached in the distal region, a second balloon attached in the distal region distal the first balloon, and a third balloon attached in the distal region distal the second balloon;

advancing the distal end of the catheter into the aorta;

sequentially inflating the first balloon, the second balloon, and the third balloon during diastole, to propagate blood flow retrograde to the coronary arteries and the carotid arteries; and

sequentially deflating the third balloon, the second balloon, and the first balloon during the ejection phase of the left ventricle to propagate blood flow antegrade, wherein the pumping action of the heart is mechanically assisted.

30. The method of claim 29, wherein the catheter further comprises a fourth balloon attached in the distal region distal the third balloon.

31. The method of claim 30, wherein the catheter further comprises a fourth balloon attached in the distal region distal the third balloon.

32. The method of claim 29, wherein the first, second, and third balloons are inflated with a gas.

33. The method of claim 32, wherein the gas is carbon dioxide.

34. The method of claim 29, wherein the first, second, and third balloons have a volume of between 10–30 cc.

35. The method of claim 29, further comprising the step of repeating the steps of sequentially inflating the first, second, and third balloons and sequentially deflating the third, second, and first balloons.

36. The method of claim 29, wherein the catheter is placed so that the first, second, and third balloons are positioned in the descending aorta.

37. The method of claim 29, wherein the first, second, and third balloons are inflated to fully obstruct the aorta.

38. The method of claim 29, wherein the first, second, and third balloons are inflated to partially obstruct the aorta.

39. The method of 29, further comprising the steps of measuring an electrocardiogram and synchronizing inflation of the balloons with the R wave of the electrocardiogram, so that maximum inflation occurs at the peak of the T wave, and deflation of the balloons is timed to occur just before the next QRS complex of the electrocardiogram.

40. A catheter for mechanically assisting the pumping action of the heart, comprising:

an elongate tubular member having a proximal end, a distal end, a distal region, and a lumen extending from the proximal end to the distal region;

a first balloon attached to the elongate tubular member at the distal region and communicating with a first inflation lumen that extends proximally from the first balloon;

a second balloon attached to the elongate tubular member at the distal region distal the first balloon and communicating with a second inflation lumen that extends proximally from the second balloon, the second balloon having an inflation volume of 10–30 cc;

a third balloon attached to the elongate tubular member at the distal region and distal the second balloon and communicating with a third inflation lumen that extends proximally from the third balloon, the third balloon having an inflation volume of 10–30 cc; and

a blood pressure measuring mechanism for measuring blood pressure upstream of the third balloon,

wherein, during use, the first, second, and third balloons are sequentially inflated during diastole to propagate blood flow retrograde to the coronary arteries and the carotid arteries, and the third, second, and first balloons are sequentially deflated during the ejection phase of the left ventricle to propagate blood flow antegrade and mechanically assist the pumping action of the heart.

41. The catheter of claim 40, wherein each of the first, second, and third balloon has an inflation volume of 10–30 cc.

42. The catheter of claim 40, wherein the blood pressure measuring mechanism comprises a manometer.

43. The catheter of claim 40, wherein the blood pressure measuring mechanism comprises a pressure lumen that communicates between a distal blood pressure port and an external manometer at the proximal end of the catheter.

44. The catheter of claim 40, wherein the catheter further comprises a fourth lumen that extends from the proximal end to the distal region.

45. The catheter of claim 44, further comprising an interventional catheter slideably inserted through the fourth lumen of the catheter.

46. The catheter of claim 45, wherein the interventional catheter is selected from the group consisting of an angioplasty catheter, an angiography catheter, a stent catheter, a thrombectomy catheter, an embolectomy catheter, an electrophysiology catheter, and an ablation catheter.

47. The catheter of claim 40, further comprising a fourth balloon attached to the elongate tubular member at the distal region distal the third balloon and communicating with a fourth inflation lumen that extends proximally from the fourth balloon, the fourth balloon having an inflation volume of 10–30 cc.

48. The catheter of claim 40, further comprising a fifth balloon attached to the elongate tubular member at the distal region distal the fourth balloon and communicating with a fifth inflation lumen that extends proximally from the fifth balloon, the fifth balloon having an inflation volume of 10–30 cc.

49. A method for mechanically assisting the pumping action of the heart, comprising the steps of :

providing a catheter comprising an elongate member having a proximal end, a distal region, the catheter further comprising an expandable member attached in the distal region and an inflatable member in the distal region and attached proximal the expandable member, the catheter further comprising a lumen that communicates with the inflatable member and extends proximally;

inserting the catheter into a subclavian artery;

advancing the distal end of the catheter into the aorta;

expanding the expandable member to at least partially obstruct the aorta;

inflating the inflatable member during diastole; and

deflating the inflatable member during the ejection phase of the left ventricle, wherein the pumping action of the heart is mechanically assisted.

50. The method of claim 49, wherein the inflatable member has a volume of between 10–30 cc.

51. The method of claim 49, wherein the expandable member is maintained in an expanded state during systole and diastole.

52. The method of claim 49, wherein the expandable member is cycled between an expanded state and a contracted state.

53. The method of claim 49, wherein the expandable member is expanded before inflating the inflatable member, and wherein the expandable member is contracted after deflating the inflatable member.

54. The method of claim 49, further comprising the steps of repeating the steps of inflating the inflatable member and deflating the inflatable member.

55. The method of claim 53, further comprising the steps of repeating the steps of inflating the inflatable member and deflating the inflatable member.

56. The method of claim 49, wherein the catheter is placed so that the inflatable member and the expandable member are positioned in the descending aorta.

57. The method of claim 49, wherein the inflatable member is inflated with carbon dioxide.

58. The method of claim 49, wherein the expandable member is a balloon.

59. The method of claim 58, wherein the balloon is expanded by filling with saline.

60. The method of claim 58, wherein the balloon is expanded by filling with carbon dioxide.

61. The method of claim 49, wherein the expandable member is expanded to fully obstruct the aorta.

62. The method of claim 49, wherein the expandable member is expanded to partially obstruct the aorta.

63. The method of claim 49, further comprising the steps of measuring an electrocardiogram and synchronizing inflation with the R wave of the electrocardiogram, so that maximum inflation occurs at the peak of the T wave, and deflation is timed to occur just before the next QRS complex of the electrocardiogram.

64. The method of claim 49, wherein cerebral blood flow is augmented by the combined action of the inflatable member and the expandable member.

65. The method of claim 49, further comprising the step of measuring a physiologic parameter and adjusting the expansion of the expandable member based on the measured physiologic parameter.

66. The method of claim 65, wherein the physiologic parameter is blood pressure measured at a location upstream the expandable member and/or downstream the expandable member.

67. The method of claim 65, wherein the physiologic parameter is cerebral blood flow.

68. The method of claim 62, wherein the expandable member is expanded to cause an 80 percent obstruction of the aortic lumen.

69. The method of claim 49, wherein the inflatable member is inflated with a gas.

70. The method of claim 4, wherein the expandable member is cycled in a manner that is timed with the cardiac cycle.

71. The method of claim 10, wherein the expandable member is a volume displacement member.

72. The method of claim 52, wherein the expandable member is cycled in a manner that is timed with the cardiac cycle.

73. The method of claim 58, wherein the expandable member is a volume displacement member.